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Emotion Recognition and Intellectual Disability: Development of the Kinetic Emotion
Recognition Assessment and Evaluation of the Emotion Specificity Hypothesis

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Zara Angela Godinovich

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ABSTRACT

Deficits in social adaptive functioning are a defining criterion of intellectual disability (ID) (American Psychiatric Association, 2013), and a key predictor of social inclusion and subsequent quality of life (Kozma, Mansell, & Beadle-Brown, 2009). Impairment in facial emotion recognition is often cited as the component skill responsible for the social difficulties observed. This position has been formally conceptualised by the emotion specificity hypothesis (ESH; Rojahn, Rabold, & Schneider, 1995), which proposes that individuals with ID manifest a specific deficit in facial emotion recognition beyond that which can be explained by difficulties in general intellectual functioning. Despite apparent widespread acceptance, there is not yet sufficient evidence to substantiate these claims. Moore (2001) proposes that emotion perception capacities may be intact in people with ID, and that reported deficits are instead, due to emotion recognition tasks making extensive cognitive demands that disadvantage those with lesser cognitive abilities.

The aim of the present study was to clarify the nature of facial emotion recognition abilities in adults with mild ID. To this end, the Kinetic Emotion Recognition Assessment (KERA), a video-based measure of facial emotion recognition, was developed and a pilot study completed. The measure was designed to assess emotion recognition abilities, while attempting to reduce information-processing demands beyond those required to perceive the emotional content of stimuli. The new instrument was assessed for its psychometric properties in individuals with ID and neurotypical control participants. Initial findings supported the inter-rater reliability and overarching construct validity of the measure, offering strong evidence in favour of content, convergent and predictive validity. Item difficulty and discrimination analysis confirmed that the KERA included items of an appropriate level of difficulty to capture the range of emotion recognition capacities expected of individuals with mild ID.

The secondary focus of the study was to assess how subtle methodological changes in the assessment of emotion recognition ability may affect emotion recognition performance, and

in turn provide insight into how we might reinterpret existing ESH literature. To this end, the KERA was also applied in an investigation of the potential moderating effects of dynamic cues and emotion intensity, in addition to the assessment of the ESH. The results offer strong evidence that individuals with ID experience relative impairment in emotion recognition abilities when compared with typically developing controls. However, it remains to be seen whether the observed difficulties are specific to emotional expression or associated with more generalised facial processing. Preliminary findings also suggest that like their typically developing peers, individuals with ID benefit from higher intensity emotional displays; while in contrast, they observe no advantage from the addition of movement cues. Finally, the overarching motivation for the reassessment and improved measurement of the ESH, was in the interests of improving real-world outcomes associated with emotion recognition capacities. Accordingly, emotion recognition data were also interpreted in the context of three measures of social functioning to explore the link between social competence and emotion recognition ability. Results indicated that emotion recognition abilities are linked to outcomes in social adaptive functioning, particularly for females.

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